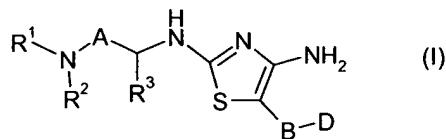


CLAIMS

1. A compound of formula (I):



5

wherein

A is a valence bond or C₁₋₆-alkylene,

10 (i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

15 • hydrogen,
 • oxo,
 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

25 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

5

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

10

15

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

20

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

25

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

30

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

35

wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

5

- hydrogen,
- oxo,
- 10 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

15 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,

-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,

-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,

-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

20 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,

-C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,

-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,

-S-heteroaryl, -S-C₃₋₈-heterocyclyl,

30 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸,

-OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷,

-C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

5 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

10 (iii) or R¹ and R² which may be the same or different independently are selected from
hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with
one or two substituents independently selected from

15 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹,
-OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰,
-S(=O)₂NH₂,

20 • wherein R²⁰ and R²¹ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

25 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

30 • hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

10 which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵, -OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴, -S(=O)₂NH₂,

15 wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

25

wherein the ring moieties may optionally be substituted with one to three substituents selected from

30 ○ hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷, -OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶, -S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

35 wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the

nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5 ○ C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹,
-OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,
10 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

wherein R²⁸ and R²⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the 15 nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 ○ aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-
C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-
cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-
heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,
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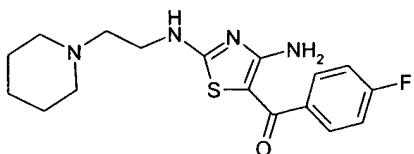
wherein the ring moieties may optionally be substituted with one to three 20 substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
-C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,
30 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

wherein R³⁰ and R³¹ which may be the same or different independently are 35 selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

with the proviso that the compound must not be

5



as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

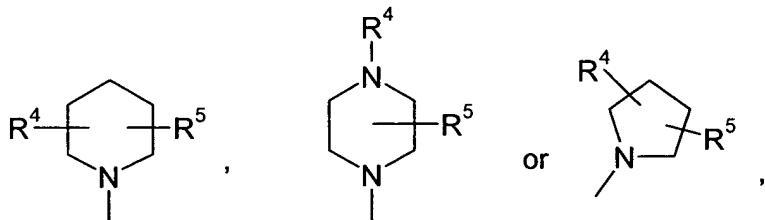
10

2. A compound according to claim 1 wherein R² and R³ are both hydrogen, and R¹ is -C(=O)OR¹⁹.

3. A compound according to claim 2 wherein R¹⁹ is C₁₋₆-alkyl.

15

4. A compound according to claim 1 wherein R³ is hydrogen, and R¹ and R², together with the nitrogen atom to which they are attached, form a ring



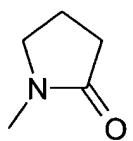
20

5. A compound according to claim 4 wherein R⁴ and R⁵ are independently selected from hydrogen, C₁₋₆-alkyl, phenyl-C₁₋₆-alkyl and oxo.

25

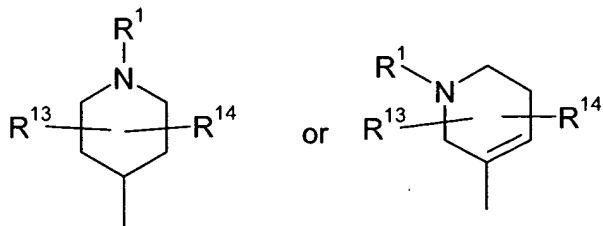
6. A compound according to claim 5 wherein R⁴ is hydrogen or C₁₋₆-alkyl, and R⁵ is hydrogen or oxo.

7. A compound according to claim 4 wherein R³ is hydrogen, and R¹ and R², together with the nitrogen atom to which they are attached, form a ring



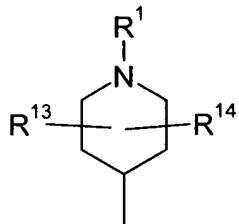
8. A compound according to claim 1 wherein R² and R³, together with A and the nitrogen atom and the carbon atom, respectively, to which they are attached, form a ring

5



9. A compound according to claim 8 wherein R² and R³, together with A and the nitrogen atom and the carbon atom, respectively, to which they are attached, form a ring

10



10. A compound according to claim 8 or 9 wherein R¹ is hydrogen, C₁₋₆-alkyl, phenyl-C₁₋₆-alkyl or -C(=O)OR¹⁰, wherein R¹⁰ is as defined in claim 1, and R¹³ and R¹⁴ are independently hydrogen, C₁₋₆-alkyl, phenyl-C₁₋₆-alkyl or oxo.

15

11. A compound according to claim 10 wherein R¹ is hydrogen or -C(=O)O-C₁₋₆-alkyl, and R¹³ and R¹⁴ are hydrogen.

20

12. A compound according to claim 1 wherein R¹, R² and R³ are hydrogen.

13. A compound according to claim 1 wherein A is C₁₋₆-alkylene.

14. A compound according to claim 13 wherein A is methylene or ethylene.

15. A compound according to claim 14 wherein A is ethylene.

5 16. A compound according to claim 1 wherein B is -C(=O)-.

17. A compound according to claim 1 wherein D is C₃₋₈-cycloalkyl, heteroaryl or aryl, which may optionally be substituted.

10 18. A compound according to claim 1 wherein D is C₃₋₈-cycloalkyl, heteroaryl or aryl, which may optionally be substituted, but not in the positions adjacent to the point of attachment of D to B.

19. A compound according to claim 17 or 18 wherein D is cyclopropyl, thienyl or phenyl,
15 which may optionally be substituted.

20. A compound according to claim 17 wherein D is cyclopropyl.

21. A compound according to claim 17 or 18 wherein D is thienyl, which is substituted with
20 halogen.

22. A compound according to claim 17 or 18 wherein D is phenyl, which is optionally substituted with

25 • hydroxy, halogen,

• heteroaryl-C₁₋₆-alkoxy, aryl-C₁₋₆-alkoxy, wherein the ring moieties are optionally substituted.

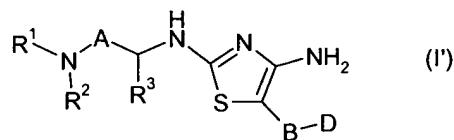
30 23. A compound according to claim 22 wherein D is phenyl which is optionally substituted with halogen or benzyloxy, wherein the ring moiety of benzyloxy is optionally substituted.

24. A compound according to claim 23 wherein D is phenyl, which is substituted with benzyl-oxy.

25. A pharmaceutical composition comprising at least one compound according to claim 1 together with one or more pharmaceutically acceptable carriers or excipients.

5 26. A pharmaceutical composition according to claim 25 in unit dosage form, comprising from about 0.05 mg to about 1000 mg of the compound according to claim 1.

27. A method for treating diseases, disorders, syndromes and conditions wherein an inhibition of glycogen synthase kinase-3 (GSK-3) is beneficial, said method comprising
10 administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

15 A is a valence bond or C₁₋₆-alkylene,

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups

20 R⁴ and R⁵ which are independently selected from

- hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,

-C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

5 wherein R¹¹ and R¹² which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

10 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to
which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- hydrogen,
- 15 • oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20 which may optionally be substituted with one or two substituents independently
selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

25 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

30 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-
C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cyclo-
alkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,
-C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,
-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,
35 -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$,
 $-OCH_2C(=O)NR^{17}R^{18}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{17}$,
 $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$,
 $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

10 wherein R^{17} and R^{18} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{17} and R^{18} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 (iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

wherein R^{19} is C_{1-6} -alkyl, C_{2-6} -alkenyl or C_{2-6} -alkynyl, which may optionally be substituted with one or two substituents independently selected from

20 • hydroxy, halogen, cyano, nitro, $-NR^{20}R^{21}$, $-C(=O)NR^{20}R^{21}$, $-OC(=O)NR^{20}R^{21}$,
 $-OCH_2C(=O)NR^{20}R^{21}$, C_{1-6} -alkoxy, $-C(=O)OR^{20}$, $-C(=O)R^{20}$, $-NHC(=O)R^{20}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{20}$, $-S(=O)R^{20}$, $-S(=O)_2R^{20}$,
 $-S(=O)_2NH_2$,

25 • wherein R^{20} and R^{21} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{20} and R^{21} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and R^3 is hydrogen,

B is a valence bond, $-C(=O)-$, $-S(=O)-$ or $-S(=O)_2-$,

35 D is

- hydroxy, halogen, cyano, nitro, $-\text{NR}^{22}\text{R}^{23}$, $-\text{N}(\text{R}^{22})\text{OR}^{23}$, $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$, $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$, $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$, $\text{C}_{1-6}\text{-alkoxy}$, $-\text{C}(=\text{O})\text{OR}^{22}$, $-\text{C}(=\text{O})\text{R}^{22}$, $-\text{NHC}(=\text{O})\text{R}^{22}$, $-\text{CHF}_2$, $-\text{CF}_3$, $-\text{OCF}_3$, $-\text{OCHF}_2$, $-\text{OCH}_2\text{CF}_3$, $-\text{OCF}_2\text{CHF}_2$, $-\text{SCF}_3$, $-\text{SR}^{22}$, $-\text{S}(=\text{O})\text{R}^{22}$, $-\text{S}(=\text{O})_2\text{R}^{22}$, $-\text{S}(=\text{O})_2\text{NH}_2$,

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-\text{NR}^{24}\text{R}^{25}$, $-\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$, $-\text{OC}(=\text{O})\text{NR}^{24}\text{R}^{25}$, $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$, C_{1-6} -alkoxy, $-\text{C}(=\text{O})\text{OR}^{24}$, $-\text{C}(=\text{O})\text{R}^{24}$, $-\text{NHC}(=\text{O})\text{R}^{24}$, $-\text{CHF}_2$, $-\text{CF}_3$, $-\text{OCF}_3$, $-\text{OCHF}_2$, $-\text{OCH}_2\text{CF}_3$, $-\text{OCF}_2\text{CHF}_2$, $-\text{SCF}_3$, $-\text{SR}^{24}$, $-\text{S}(=\text{O})\text{R}^{24}$, $-\text{S}(=\text{O})_2\text{R}^{24}$, $-\text{S}(=\text{O})_2\text{NH}_2$,

20 wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro, $-NR^{26}R^{27}$, $-C(=O)NR^{26}R^{27}$, $-OC(=O)NR^{26}R^{27}$, $-OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, $-C(=O)OR^{26}$, $-C(=O)R^{26}$, $-NHC(=O)R^{26}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{26}$, $-S(=O)R^{26}$, $-S(=O)_2R^{26}$, $-S(=O)_2NH_2$,

5

wherein R^{26} and R^{27} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{26} and R^{27} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

15

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{28}R^{29}$, $-C(=O)NR^{28}R^{29}$, $-OC(=O)NR^{28}R^{29}$, $-OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, $-C(=O)OR^{28}$, $-C(=O)R^{28}$, $-NHC(=O)R^{28}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{28}$, $-S(=O)R^{28}$, $-S(=O)_2R^{28}$, $-S(=O)_2NH_2$,

20

wherein R^{28} and R^{29} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{28} and R^{29} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O$ - C_{3-8} -cycloalkyl, $-O$ -heteroaryl, $-O$ - C_{3-8} -heterocyclyl, $-S$ -aryl, $-S$ - C_{3-8} -cycloalkyl, $-S$ -heteroaryl, $-S$ - C_{3-8} -heterocyclyl,

30

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{30}R^{31}$, $-C(=O)NR^{30}R^{31}$, $-OC(=O)NR^{30}R^{31}$, $-OCH_2C(=O)NR^{30}R^{31}$, C_{1-6} -alkyl,

35

C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰, -S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

5 wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

15 28. The method according to claim 27, wherein the effective amount of the compound is in the range of from about 0.05 mg to about 2000 mg per day.

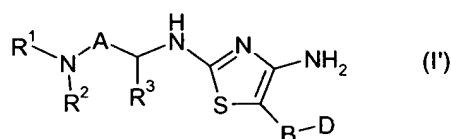
29. A pharmaceutical composition according to claim 25 in unit dosage form; comprising from about 0.1 mg to about 500 mg of the compound according to claim 1.

20 30. A pharmaceutical composition according to claim 25 in unit dosage form, comprising from about 0.5 mg to about 200 mg of the compound according to claim 1.

31. The method according to claim 27, wherein the effective amount of the compound is in the range of from about 0.1 mg to about 1000 mg per day.

25 32. The method according to claim 27, wherein the effective amount of the compound is in the range of from about 0.5 mg to about 500 mg per day.

33. A method for treating diseases, disorders, syndromes and conditions related to glycogen 30 synthase kinase-3 (GSK-3), said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C₁₋₆-alkylene,

5 (i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

10 • hydrogen,

• oxo,

• C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

15 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶,
20 -S(=O)₂NH₂,

25 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

35 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹,

60

-OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸,
-S(=O)₂R⁸, -S(=O)₂NH₂,

5 wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

15 wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
20 -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

25 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- hydrogen,
- oxo,

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^{15}R^{16}$, $-C(=O)NR^{15}R^{16}$,
5 $-OC(=O)NR^{15}R^{16}$, $-OCH_2C(=O)NR^{15}R^{16}$, C_{1-6} -alkoxy, $-C(=O)OR^{15}$, $-C(=O)R^{15}$,
 $-NHC(=O)R^{15}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{15}$,
 $-S(=O)R^{15}$, $-S(=O)_2R^{15}$, $-S(=O)_2NH_2$,

10 wherein R^{15} and R^{16} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{15} and R^{16} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 • aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

25 hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$, $-OCH_2C(=O)NR^{17}R^{18}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{17}$, $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

30 wherein R^{17} and R^{18} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{17} and R^{18} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35 (iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- 5 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹,
 -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂,
 -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰,
 -S(=O)₂NH₂,
- 10 • wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,
- 15 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

- 20 • hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
 -OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
 -NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
 -S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,
- 25 wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,
- 30 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,
 which may optionally be substituted with one or two substituents selected from
 hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
 -OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,

-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴, -S(=O)₂NH₂,

5 wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

15

wherein the ring moieties may optionally be substituted with one to three substituents selected from

20

- hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷, -OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶, -S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

25 wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹, -OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

wherein R²⁸ and R²⁹ which may be the same or different independently are
5 selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

10 ○ aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-
alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-
C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-
cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-
15 heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

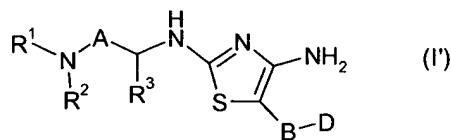
wherein the ring moieties may optionally be substituted with one to three
substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
-C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
20 C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

wherein R³⁰ and R³¹ which may be the same or different independently are
25 selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

30 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of
these or a pharmaceutically acceptable salt thereof.

34. A method for treating diseases, disorders, syndromes and conditions wherein growth
factor induced inhibition of glycogen synthase kinase-3 (GSK-3) is insufficient, said method

comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



5 wherein

A is a valence bond or C₁₋₆-alkylene,

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7
10 membered non-aromatic ring, which ring may optionally contain a double bond, and which
ring may optionally contain a further nitrogen atom, and to which ring is attached two groups
R⁴ and R⁵ which are independently selected from

- hydrogen,
- 15 • oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷,
-OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃,
-OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶,
-S(=O)₂NH₂,

25 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cyclo-

alkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocycl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocycl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocycl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocycl,

5

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, 10 -S(=O)₂R⁸, -S(=O)₂NH₂,

10

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two 15 further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocycl-C₁₋₆-alkyl,

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

25

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

30

wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

5 • hydrogen,
 • oxo,
 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,
10 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
 -OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
 -NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
15 -S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,
 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,
20 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,
25 -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,
 -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,
 -S-heteroaryl, -S-C₃₋₈-heterocyclyl,
 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from
30 hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸,
 -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷,
 -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
35 -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

5 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R¹ and R² which may be the same or different independently are selected from hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

10 10 wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹, -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰, -S(=O)₂NH₂,
- wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

25 25 B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

- hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³, -OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²², -NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²², -S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

35 35 wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

5

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵, -OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴, -S(=O)₂NH₂,

10

wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

20

25

wherein the ring moieties may optionally be substituted with one to three substituents selected from

30

- hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷, -OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶, -S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- o C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

5

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{28}R^{29}$, $-C(=O)NR^{28}R^{29}$, $-OC(=O)NR^{28}R^{29}$, $-OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, $-C(=O)OR^{28}$, $-C(=O)R^{28}$, $-NHC(=O)R^{28}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{28}$, $-S(=O)R^{28}$, $-S(=O)_2R^{28}$, $-S(=O)_2NH_2$,

10

wherein R^{28} and R^{29} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{28} and R^{29} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- o aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cyclo-alkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

20

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{30}R^{31}$, $-C(=O)NR^{30}R^{31}$, $-OC(=O)NR^{30}R^{31}$, $-OCH_2C(=O)NR^{30}R^{31}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{30}$, $-C(=O)R^{30}$, $-NHC(=O)R^{30}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{30}$, $-S(=O)R^{30}$, $-S(=O)_2R^{30}$, $-S(=O)_2NH_2$,

25

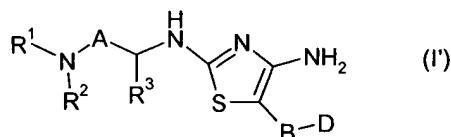
wherein R^{30} and R^{31} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{30} and R^{31} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

30

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of
5 these or a pharmaceutically acceptable salt thereof.

35. A method for treating diseases, disorders, syndromes and conditions wherein glycogen metabolism exhibits abnormalities, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



10

wherein

A is a valence bond or C₁₋₆-alkylene,

15

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

20

- hydrogen,

- oxo,

25

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

30

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

15

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20
25
and R³ is hydrogen,

20

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

30

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

35

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
5 further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from
10

- hydrogen,
- oxo,
- 15 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
20 -NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
25 further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,
30 -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$,
 $-OCH_2C(=O)NR^{17}R^{18}$, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, $-C(=O)OR^{17}$,
 $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$,
 $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

10 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- 20 • hydroxy, halogen, cyano, nitro, $-\text{NR}^{20}\text{R}^{21}$, $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$, $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$,
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$, C_{1-6} -alkoxy, $-\text{C}(=\text{O})\text{OR}^{20}$, $-\text{C}(=\text{O})\text{R}^{20}$, $-\text{NHC}(=\text{O})\text{R}^{20}$, $-\text{CHF}_2$,
 $-\text{CF}_3$, $-\text{OCF}_3$, $-\text{OCHF}_2$, $-\text{OCH}_2\text{CF}_3$, $-\text{OCF}_2\text{CHF}_2$, $-\text{SCF}_3$, $-\text{SR}^{20}$, $-\text{S}(=\text{O})\text{R}^{20}$, $-\text{S}(=\text{O})_2\text{R}^{20}$,
 $-\text{S}(=\text{O})_2\text{NH}_2$,
- 25 • wherein R^{20} and R^{21} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{20} and R^{21} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,
- 30 and R^3 is hydrogen,

B is a valence bond, $-C(=O)-$, $-S(=O)-$ or $-S(=O)_{2-}$,

Dis

- hydroxy, halogen, cyano, nitro, $-NR^{22}R^{23}$, $-N(R^{22})OR^{23}$, $-C(=O)NR^{22}R^{23}$,
 $-OC(=O)NR^{22}R^{23}$, $-OCH_2C(=O)NR^{22}R^{23}$, C_{1-6} -alkoxy, $-C(=O)OR^{22}$, $-C(=O)R^{22}$,
 $-NHC(=O)R^{22}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{22}$,
 $-S(=O)R^{22}$, $-S(=O)_2R^{22}$, $-S(=O)_2NH_2$,

5

wherein R^{22} and R^{23} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{22} and R^{23} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

15

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{24}R^{25}$, $-C(=O)NR^{24}R^{25}$, $-OC(=O)NR^{24}R^{25}$,
 $-OCH_2C(=O)NR^{24}R^{25}$, C_{1-6} -alkoxy, $-C(=O)OR^{24}$, $-C(=O)R^{24}$, $-NHC(=O)R^{24}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{24}$, $-S(=O)R^{24}$, $-S(=O)_2R^{24}$,
 $-S(=O)_2NH_2$,

20

wherein R^{24} and R^{25} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{24} and R^{25} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl-
 C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy,
 C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy,
 $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl,
 $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl,
 $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl, $-NH$ -aryl, $-NH$ -heteroaryl,

30

wherein the ring moieties may optionally be substituted with one to three substituents selected from

35

- hydroxy, halogen, cyano, nitro, $-NR^{26}R^{27}$, $-C(=O)NR^{26}R^{27}$, $-OC(=O)NR^{26}R^{27}$,
 $-OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, $-C(=O)OR^{26}$, $-C(=O)R^{26}$, $-NHC(=O)R^{26}$,

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶,
-S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

5 wherein R²⁶ and R²⁷ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

10 ○ C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from
hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹,
-OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,
15 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

20 wherein R²⁸ and R²⁹ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

25 ○ aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-
alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-
C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-
cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-
heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

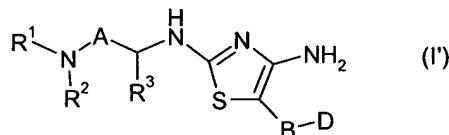
30 wherein the ring moieties may optionally be substituted with one to three
substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
-C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

5 wherein R³⁰ and R³¹ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

10 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of
these or a pharmaceutically acceptable salt thereof.

15 36. A method for treating diseases, disorders, syndromes and conditions wherein glycogen
synthase is insufficiently activated, said method comprising administering to a subject in
need thereof an effective amount of a compound of formula (I'):



wherein

20 A is a valence bond or C₁₋₆-alkylene,

25 (i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7
membered non-aromatic ring, which ring may optionally contain a double bond, and which
ring may optionally contain a further nitrogen atom, and to which ring is attached two groups
R⁴ and R⁵ which are independently selected from

- hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^6R^7$, $-C(=O)NR^6R^7$, $-OC(=O)NR^6R^7$, $-OCH_2C(=O)NR^6R^7$, C_{1-6} -alkoxy, $-C(=O)OR^6$, $-C(=O)R^6$, $-NHC(=O)R^6$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^6$, $-S(=O)R^6$, $-S(=O)_2R^6$, $-S(=O)_2NH_2$,

wherein R^6 and R^7 which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^6 and R^7 , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^8R^9$, $-C(=O)NR^8R^9$, $-OC(=O)NR^8R^9$, $-OCH_2C(=O)NR^8R^9$, C_{1-6} -alkoxy, $-C(=O)OR^8$, $-C(=O)R^8$, $-NHC(=O)R^8$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^8$, $-S(=O)R^8$, $-S(=O)_2R^8$, $-S(=O)_2NH_2$,

wherein R^8 and R^9 which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^8 and R^9 , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R^3 is hydrogen,

(ii) or R^1 is hydrogen, $-C(=O)OR^{10}$, $-C(=O)R^{10}$, C_{1-6} -alkyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl or C_{3-8} -heterocyclyl- C_{1-6} -alkyl,

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

5 hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
-C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

10 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- 20 • hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

30 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)$ - C_{3-8} -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)$ - C_{3-8} -heterocyclyl, $-O$ -aryl, $-O$ - C_{3-8} -cycloalkyl, $-O$ -heteroaryl, $-O$ - C_{3-8} -heterocyclyl, $-S$ -aryl, $-S$ - C_{3-8} -cycloalkyl, $-S$ -heteroaryl, $-S$ - C_{3-8} -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

10

hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$, $-OCH_2C(=O)NR^{17}R^{18}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{17}$, $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

15

wherein R^{17} and R^{18} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{17} and R^{18} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

(iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

25

wherein R^{19} is C_{1-6} -alkyl, C_{2-6} -alkenyl or C_{2-6} -alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, $-NR^{20}R^{21}$, $-C(=O)NR^{20}R^{21}$, $-OC(=O)NR^{20}R^{21}$, $-OCH_2C(=O)NR^{20}R^{21}$, C_{1-6} -alkoxy, $-C(=O)OR^{20}$, $-C(=O)R^{20}$, $-NHC(=O)R^{20}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{20}$, $-S(=O)R^{20}$, $-S(=O)_2R^{20}$, $-S(=O)_2NH_2$,

- wherein R^{20} and R^{21} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{20} and R^{21} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

5

D is

- hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

10

wherein R²² and R²³ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which
15 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20

which may optionally be substituted with one or two substituents selected from
hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
-OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴,
-S(=O)₂NH₂,

25

wherein R²⁴ and R²⁵ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-
C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy,
C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy,
-C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl,

-O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl,
-S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents

5 selected from

- o hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷,
-OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶,
-S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

10

wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 15 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- o C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹, -OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸, -S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

25

wherein R²⁸ and R²⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 30 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- o aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,

35

-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

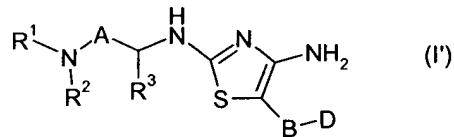
wherein the ring moieties may optionally be substituted with one to three

5 substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
 -C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
 C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,
 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
 -S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

10 wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 15 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

20 37. A method for treating diseases, disorders, syndromes and conditions involving elevated blood glucose, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



25 wherein

A is a valence bond or C₁₋₆-alkylene,

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7

30 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

- hydrogen,
- oxo,
- 5 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷,
10 -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃,
-OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶,
-S(=O)₂NH₂,

15 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,
20 -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,
-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,
-S-heteroaryl, -S-C₃₋₈-heterocyclyl,
- 25 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹,
-OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸,
-S(=O)₂R⁸, -S(=O)₂NH₂,

30 wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

5

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

10 hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
-C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

15 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- 25 • hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

30 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

15

hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸, -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷, -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

20

wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

(iii) or R¹ and R² which may be the same or different independently are selected from hydrogen, -C(=O)OR¹⁹, -C(=O)R¹⁹ and C₁₋₆-alkyl,

30

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹, -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰, -S(=O)₂NH₂,

35

- wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

10

D is

- hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-15 -NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

20

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 25 C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
-OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴,
-S(=O)₂NH₂,

30

wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, - $C(=O)$ -aryl, - $C(=O)$ - C_{3-8} -cycloalkyl, - $C(=O)$ -heteroaryl, - $C(=O)$ - C_{3-8} -heterocyclyl, - O -aryl, - O - C_{3-8} -cycloalkyl, - O -heteroaryl, - O - C_{3-8} -heterocyclyl, - S -aryl, - S - C_{3-8} -cycloalkyl, - S -heteroaryl, - S - C_{3-8} -heterocyclyl, - NH -aryl, - NH -heteroaryl,

5

wherein the ring moieties may optionally be substituted with one to three substituents selected from

10

- o hydroxy, halogen, cyano, nitro, - $NR^{26}R^{27}$, - $C(=O)NR^{26}R^{27}$, - $OC(=O)NR^{26}R^{27}$, - $OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, - $C(=O)OR^{26}$, - $C(=O)R^{26}$, - $NHC(=O)R^{26}$, - CHF_2 , - CF_3 , - OCF_3 , - $OCHF_2$, - OCH_2CF_3 , - OCF_2CHF_2 , - SCF_3 , - SR^{26} , - $S(=O)R^{26}$, - $S(=O)_2R^{26}$, - $S(=O)_2NH_2$,

15

wherein R^{26} and R^{27} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{26} and R^{27} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- o C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

25

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, - $NR^{28}R^{29}$, - $C(=O)NR^{28}R^{29}$, - $OC(=O)NR^{28}R^{29}$, - $OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, - $C(=O)OR^{28}$, - $C(=O)R^{28}$, - $NHC(=O)R^{28}$, - CHF_2 , - CF_3 , - OCF_3 , - $OCHF_2$, - OCH_2CF_3 , - OCF_2CHF_2 , - SCF_3 , - SR^{28} , - $S(=O)R^{28}$, - $S(=O)_2R^{28}$, - $S(=O)_2NH_2$,

30

wherein R^{28} and R^{29} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{28} and R^{29} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

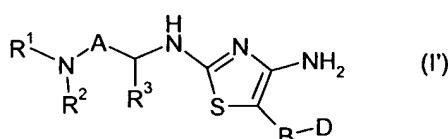
- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, $-\text{NR}^{30}\text{R}^{31}$, $-\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$, $-\text{OC}(=\text{O})\text{NR}^{30}\text{R}^{31}$, $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$, $\text{C}_{1-6}\text{-alkyl}$, $\text{C}_{2-6}\text{-alkenyl}$, $\text{C}_{2-6}\text{-alkynyl}$, $\text{C}_{1-6}\text{-alkoxy}$, $-\text{C}(=\text{O})\text{OR}^{30}$, $-\text{C}(=\text{O})\text{R}^{30}$, $-\text{NHC}(=\text{O})\text{R}^{30}$, $-\text{CHF}_2$, $-\text{CF}_3$, $-\text{OCF}_3$, $-\text{OCHF}_2$, $-\text{OCH}_2\text{CF}_3$, $-\text{OCF}_2\text{CHF}_2$, $-\text{SCF}_3$, $-\text{SR}^{30}$, $-\text{S}(=\text{O})\text{R}^{30}$, $-\text{S}(=\text{O})_2\text{R}^{30}$, $-\text{S}(=\text{O})_2\text{NH}_2$,

15 wherein R^{30} and R^{31} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{30} and R^{31} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof

38. A method for treating hyperglycemia, said method comprising administering to a subject
25 in need thereof an effective amount of a compound of formula (I'):



wherein

30 A is a valence bond or C₁₋₆-alkylene.

(i) R^1 and R^2 , together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which

ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

- hydrogen,
- 5 • oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

10 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

15 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

25 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

30 wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

5

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with 10 one or two substituents independently selected from

15

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

20

wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

25

- hydrogen,
- oxo,

30 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,

-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
 -S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

5 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

15 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

20 hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸, -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷, -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

25 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 (iii) or R¹ and R² which may be the same or different independently are selected from hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, $-NR^{20}R^{21}$, $-C(=O)NR^{20}R^{21}$, $-OC(=O)NR^{20}R^{21}$,
 $-OCH_2C(=O)NR^{20}R^{21}$, C_{1-6} -alkoxy, $-C(=O)OR^{20}$, $-C(=O)R^{20}$, $-NHC(=O)R^{20}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{20}$, $-S(=O)R^{20}$, $-S(=O)_2R^{20}$,
 $-S(=O)_2NH_2$,

5

- wherein R^{20} and R^{21} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{20} and R^{21} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

and R^3 is hydrogen,

B is a valence bond, $-C(=O)-$, $-S(=O)-$ or $-S(=O)_2-$,

15 D is

- hydroxy, halogen, cyano, nitro, $-NR^{22}R^{23}$, $-N(R^{22})OR^{23}$, $-C(=O)NR^{22}R^{23}$,
 $-OC(=O)NR^{22}R^{23}$, $-OCH_2C(=O)NR^{22}R^{23}$, C_{1-6} -alkoxy, $-C(=O)OR^{22}$, $-C(=O)R^{22}$,
 $-NHC(=O)R^{22}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{22}$,
 $-S(=O)R^{22}$, $-S(=O)_2R^{22}$, $-S(=O)_2NH_2$,

20

wherein R^{22} and R^{23} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{22} and R^{23} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

30

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{24}R^{25}$, $-C(=O)NR^{24}R^{25}$, $-OC(=O)NR^{24}R^{25}$,
 $-OCH_2C(=O)NR^{24}R^{25}$, C_{1-6} -alkoxy, $-C(=O)OR^{24}$, $-C(=O)R^{24}$, $-NHC(=O)R^{24}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{24}$, $-S(=O)R^{24}$, $-S(=O)_2R^{24}$,
 $-S(=O)_2NH_2$,

wherein R^{24} and R^{25} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{24} and R^{25} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl, $-NH$ -aryl, $-NH$ -heteroaryl,

10

wherein the ring moieties may optionally be substituted with one to three substituents selected from

15

- o hydroxy, halogen, cyano, nitro, $-NR^{26}R^{27}$, $-C(=O)NR^{26}R^{27}$, $-OC(=O)NR^{26}R^{27}$, $-OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, $-C(=O)OR^{26}$, $-C(=O)R^{26}$, $-NHC(=O)R^{26}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{26}$, $-S(=O)R^{26}$, $-S(=O)_2R^{26}$, $-S(=O)_2NH_2$,

20

wherein R^{26} and R^{27} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{26} and R^{27} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- o C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

30

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{28}R^{29}$, $-C(=O)NR^{28}R^{29}$, $-OC(=O)NR^{28}R^{29}$, $-OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, $-C(=O)OR^{28}$, $-C(=O)R^{28}$, $-NHC(=O)R^{28}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{28}$, $-S(=O)R^{28}$, $-S(=O)_2R^{28}$, $-S(=O)_2NH_2$,

wherein R²⁸ and R²⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- o aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹, -C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰, -S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

15

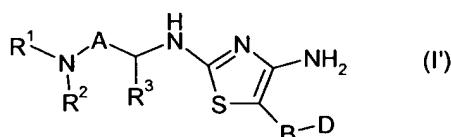
wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

25

39. A method for treating impaired glucose tolerance, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C_{1-6} -alkylene,

5 (i) R^1 and R^2 , together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R^4 and R^5 which are independently selected from

10 • hydrogen,
• oxo,
• C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

15 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^6R^7$, $-C(=O)NR^6R^7$, $-OC(=O)NR^6R^7$, $-OCH_2C(=O)NR^6R^7$, C_{1-6} -alkoxy, $-C(=O)OR^6$, $-C(=O)R^6$, $-NHC(=O)R^6$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^6$, $-S(=O)R^6$, $-S(=O)_2R^6$,
20 $-S(=O)_2NH_2$,

25 wherein R^6 and R^7 which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^6 and R^7 , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

• aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl,
30 $-C(=O)$ - C_{3-8} -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)$ - C_{3-8} -heterocyclyl, $-O$ -aryl,
 $-O$ - C_{3-8} -cycloalkyl, $-O$ -heteroaryl, $-O$ - C_{3-8} -heterocyclyl, $-S$ -aryl, $-S$ - C_{3-8} -cycloalkyl,
 $-S$ -heteroaryl, $-S$ - C_{3-8} -heterocyclyl,

35 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^8R^9$, $-C(=O)NR^8R^9$,

-OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸,
-S(=O)₂R⁸, -S(=O)₂NH₂,

5 wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

15 wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
20 -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

25 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- hydrogen,
- oxo,

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^{15}R^{16}$, $-C(=O)NR^{15}R^{16}$,
5 $-OC(=O)NR^{15}R^{16}$, $-OCH_2C(=O)NR^{15}R^{16}$, C_{1-6} -alkoxy, $-C(=O)OR^{15}$, $-C(=O)R^{15}$,
 $-NHC(=O)R^{15}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{15}$,
 $-S(=O)R^{15}$, $-S(=O)_2R^{15}$, $-S(=O)_2NH_2$,

10 wherein R^{15} and R^{16} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{15} and R^{16} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 • aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

25 hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$,
 $-OCH_2C(=O)NR^{17}R^{18}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{17}$,
 $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$,
 $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

30 wherein R^{17} and R^{18} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{17} and R^{18} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35 (iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

5 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹,
-OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰,
-S(=O)₂NH₂,

10 • wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

20 • hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

25 wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,
which may optionally be substituted with one or two substituents selected from
hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
-OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,

100

-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴, -S(=O)₂NH₂,

5 wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

15 wherein the ring moieties may optionally be substituted with one to three substituents selected from

20 ○ hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷, -OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶, -S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

25 wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 ○ C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹, -OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,

101

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

5 wherein R²⁸ and R²⁹ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

10

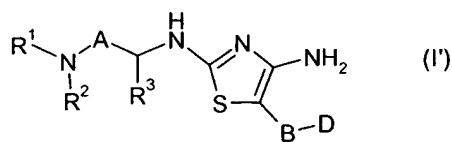
- o aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-
15 cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-
heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three
substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
-C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

25 wherein R³⁰ and R³¹ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

30 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of
these or a pharmaceutically acceptable salt thereof.

40. A method for treating type 2 diabetes, said method comprising administering to a subject
in need thereof an effective amount of a compound of formula (I'):



wherein

5 A is a valence bond or C₁₋₆-alkylene,

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups

10 R⁴ and R⁵ which are independently selected from

- hydrogen,
- oxo,

15

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷,
20 -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃,
-OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶,
-S(=O)₂NH₂,

25 wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,

-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,
-S-heteroaryl, -S-C₃₋₈-heterocyclyl,

5 wherein the ring moieties may optionally be substituted with one to three substituents
independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹,
-OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸,
-S(=O)₂R⁸, -S(=O)₂NH₂,

10 wherein R⁸ and R⁹ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-
C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

20 wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with
one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
25 -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

30 wherein R¹¹ and R¹² which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

35 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to
which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- hydrogen,
- oxo,
- 5 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

10 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵, -NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵, -S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

15 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

25 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

30 hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸, -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷, -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

35 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R¹ and R² which may be the same or different independently are selected from

5 hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

10 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹,
-OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰,
-S(=O)₂NH₂,

15 • wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

25

• hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

30

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{24}R^{25}$, $-C(=O)NR^{24}R^{25}$, $-OC(=O)NR^{24}R^{25}$,
5 $-OCH_2C(=O)NR^{24}R^{25}$, C_{1-6} -alkoxy, $-C(=O)OR^{24}$, $-C(=O)R^{24}$, $-NHC(=O)R^{24}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{24}$, $-S(=O)R^{24}$, $-S(=O)_2R^{24}$,
 $-S(=O)_2NH_2$,

10 wherein R^{24} and R^{25} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{24} and R^{25} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl-
15 C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy,
 C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy,
 $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl,
 $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl,
 $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl, $-NH$ -aryl, $-NH$ -heteroaryl,

20 wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro, $-NR^{26}R^{27}$, $-C(=O)NR^{26}R^{27}$, $-OC(=O)NR^{26}R^{27}$,
25 $-OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, $-C(=O)OR^{26}$, $-C(=O)R^{26}$, $-NHC(=O)R^{26}$,
 $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{26}$,
 $-S(=O)R^{26}$, $-S(=O)_2R^{26}$, $-S(=O)_2NH_2$,

30 wherein R^{26} and R^{27} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{26} and R^{27} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 35 ○ C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{28}R^{29}$, $-C(=O)NR^{28}R^{29}$, $-OC(=O)NR^{28}R^{29}$,
5 $-OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, $-C(=O)OR^{28}$, $-C(=O)R^{28}$, $-NHC(=O)R^{28}$,
 $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{28}$,
 $-S(=O)R^{28}$, $-S(=O)_2R^{28}$, $-S(=O)_2NH_2$,

10 wherein R^{28} and R^{29} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{28} and R^{29} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 15 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

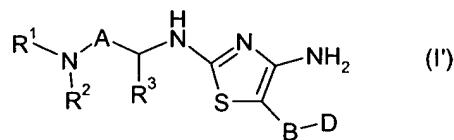
- 15 ○ aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cyclo-alkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -hetero-cyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{30}R^{31}$, $-C(=O)NR^{30}R^{31}$, $-OC(=O)NR^{30}R^{31}$, $-OCH_2C(=O)NR^{30}R^{31}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{30}$, $-C(=O)R^{30}$, $-NHC(=O)R^{30}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{30}$, $-S(=O)R^{30}$, $-S(=O)_2R^{30}$, $-S(=O)_2NH_2$,

25 wherein R^{30} and R^{31} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{30} and R^{31} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 30 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

41. A method for treating type 1 diabetes, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



5

wherein

A is a valence bond or C₁₋₆-alkylene,

10

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

15

- hydrogen,
- oxo,
- 20 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

30

wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

5 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

10 15 wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R³ is hydrogen,

20 (ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

25 wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

30 hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

35 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

5

- hydrogen,
- oxo,
- 10 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

15 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,

-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,

-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,

-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

20 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,

-C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,

-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

30 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸,

-OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷,

-C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
 -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

5 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected
 from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which
 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
 further heteroatoms selected from oxygen, sulphur and nitrogen,

10 (iii) or R¹ and R² which may be the same or different independently are selected from
 hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with
 one or two substituents independently selected from

15 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹,
 -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂,
 -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰,
 -S(=O)₂NH₂,

20 • wherein R²⁰ and R²¹ which may be the same or different independently are selected
 from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which
 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
 further heteroatoms selected from oxygen, sulphur and nitrogen,

25 and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

D is

30 • hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
 -OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
 -NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
 -S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

10 which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵, -OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴, -S(=O)₂NH₂,

15 wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 • aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl, -NH-aryl, -NH-heteroaryl,

25

wherein the ring moieties may optionally be substituted with one to three substituents selected from

30 ○ hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷, -OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶, -S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

35 wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the

nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5 ○ C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹, -OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,
10 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

15 wherein R²⁸ and R²⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 ○ aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,
25

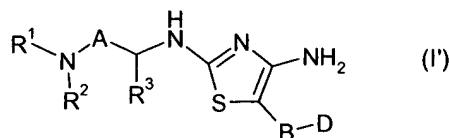
wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹, -C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,
30 -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

35 wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of
5 these or a pharmaceutically acceptable salt thereof.

42. A method for treating obesity, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



10

wherein

A is a valence bond or C₁₋₆-alkylene,

15 (i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

20

- hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

15

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R³ is hydrogen,

25

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

30

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

35

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹², -OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹, -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
5 further heteroatoms selected from oxygen, sulphur and nitrogen,

and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from
10

- hydrogen,
- oxo,
- 15 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
20 -NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)NH₂,

wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
25 further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-
C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cyclo-
30 alkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl,
-C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl,
-O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl,
-S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro, $-NR^{17}R^{18}$, $-C(=O)NR^{17}R^{18}$, $-OC(=O)NR^{17}R^{18}$,
 $-OCH_2C(=O)NR^{17}R^{18}$, C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl, C_{1-6} -alkoxy, $-C(=O)OR^{17}$,
 $-C(=O)R^{17}$, $-NHC(=O)R^{17}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$,
 $-SCF_3$, $-SR^{17}$, $-S(=O)R^{17}$, $-S(=O)_2R^{17}$, $-S(=O)_2NH_2$,

10 wherein R^{17} and R^{18} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{17} and R^{18} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 (iii) or R^1 and R^2 which may be the same or different independently are selected from hydrogen, $-C(=O)OR^{19}$ $-C(=O)R^{19}$ and C_{1-6} -alkyl,

wherein R^{19} is C_{1-6} -alkyl, C_{2-6} -alkenyl or C_{2-6} -alkynyl, which may optionally be substituted with one or two substituents independently selected from

20 • hydroxy, halogen, cyano, nitro, $-NR^{20}R^{21}$, $-C(=O)NR^{20}R^{21}$, $-OC(=O)NR^{20}R^{21}$,
 $-OCH_2C(=O)NR^{20}R^{21}$, C_{1-6} -alkoxy, $-C(=O)OR^{20}$, $-C(=O)R^{20}$, $-NHC(=O)R^{20}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{20}$, $-S(=O)R^{20}$, $-S(=O)_2R^{20}$,
 $-S(=O)_2NH_2$,

25 • wherein R^{20} and R^{21} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{20} and R^{21} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and R^3 is hydrogen,

B is a valence bond, $-C(=O)-$, $-S(=O)-$ or $-S(=O)_2-$,

D is

- hydroxy, halogen, cyano, nitro, $-NR^{22}R^{23}$, $-N(R^{22})OR^{23}$, $-C(=O)NR^{22}R^{23}$,
 $-OC(=O)NR^{22}R^{23}$, $-OCH_2C(=O)NR^{22}R^{23}$, C_{1-6} -alkoxy, $-C(=O)OR^{22}$, $-C(=O)R^{22}$,
 $-NHC(=O)R^{22}$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{22}$,
 $-S(=O)R^{22}$, $-S(=O)_2R^{22}$, $-S(=O)_2NH_2$,

5

wherein R^{22} and R^{23} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{22} and R^{23} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, $-NR^{24}R^{25}$, $-C(=O)NR^{24}R^{25}$, $-OC(=O)NR^{24}R^{25}$,
 $-OCH_2C(=O)NR^{24}R^{25}$, C_{1-6} -alkoxy, $-C(=O)OR^{24}$, $-C(=O)R^{24}$, $-NHC(=O)R^{24}$, $-CHF_2$,
 $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^{24}$, $-S(=O)R^{24}$, $-S(=O)_2R^{24}$,
 $-S(=O)_2NH_2$,

15

wherein R^{24} and R^{25} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{24} and R^{25} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl-
 C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy,
 C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy,
 $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl,
 $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl,
 $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl, $-NH$ -aryl, $-NH$ -heteroaryl,

25

wherein the ring moieties may optionally be substituted with one to three substituents selected from

30

- hydroxy, halogen, cyano, nitro, $-NR^{26}R^{27}$, $-C(=O)NR^{26}R^{27}$, $-OC(=O)NR^{26}R^{27}$,
 $-OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, $-C(=O)OR^{26}$, $-C(=O)R^{26}$, $-NHC(=O)R^{26}$,

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶,
-S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

5 wherein R²⁶ and R²⁷ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

10 ○ C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

15 which may optionally be substituted with one or two substituents selected from
hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹,
-OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

20 wherein R²⁸ and R²⁹ which may be the same or different independently are
selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring
optionally containing one or two further heteroatoms selected from oxygen,
sulphur and nitrogen,

25 ○ aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-
alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-
C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-
cyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-
heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

30 wherein the ring moieties may optionally be substituted with one to three
substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹,
-C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl,
C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰,

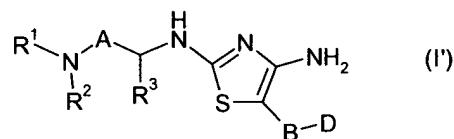
120

-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰,
-S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

5 wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

43. A method for treating Alzheimer's disease, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C₁₋₆-alkylene,

20 (i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

25

- hydrogen,
- oxo,

30 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^6R^7$, $-C(=O)NR^6R^7$, $-OC(=O)NR^6R^7$, $-OCH_2C(=O)NR^6R^7$, C_{1-6} -alkoxy, $-C(=O)OR^6$, $-C(=O)R^6$, $-NHC(=O)R^6$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^6$, $-S(=O)R^6$, $-S(=O)_2R^6$, $-S(=O)_2NH_2$,

wherein R^6 and R^7 which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^6 and R^7 , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, $-C(=O)$ -aryl, $-C(=O)-C_{3-8}$ -cycloalkyl, $-C(=O)$ -heteroaroyl, $-C(=O)-C_{3-8}$ -heterocyclyl, $-O$ -aryl, $-O-C_{3-8}$ -cycloalkyl, $-O$ -heteroaryl, $-O-C_{3-8}$ -heterocyclyl, $-S$ -aryl, $-S-C_{3-8}$ -cycloalkyl, $-S$ -heteroaryl, $-S-C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, $-NR^8R^9$, $-C(=O)NR^8R^9$, $-OC(=O)NR^8R^9$, $-OCH_2C(=O)NR^8R^9$, C_{1-6} -alkoxy, $-C(=O)OR^8$, $-C(=O)R^8$, $-NHC(=O)R^8$, $-CHF_2$, $-CF_3$, $-OCF_3$, $-OCHF_2$, $-OCH_2CF_3$, $-OCF_2CHF_2$, $-SCF_3$, $-SR^8$, $-S(=O)R^8$, $-S(=O)_2R^8$, $-S(=O)_2NH_2$,

wherein R^8 and R^9 which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^8 and R^9 , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R^3 is hydrogen,

(ii) or R^1 is hydrogen, $-C(=O)OR^{10}$, $-C(=O)R^{10}$, C_{1-6} -alkyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl or C_{3-8} -heterocyclyl- C_{1-6} -alkyl,

wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

5 hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
-C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

10 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- 20 • hydrogen,
- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

30 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

10

- hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸, -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷, -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

15

- wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- (iii) or R¹ and R² which may be the same or different independently are selected from hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

25

- wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

30

- hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹, -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰, -S(=O)₂NH₂,
- 35 wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

5

D is

- hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
-S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

10

wherein R²² and R²³ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which
15

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20

which may optionally be substituted with one or two substituents selected from
hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
-OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴,
-S(=O)₂NH₂,

25

wherein R²⁴ and R²⁵ which may be the same or different independently are selected
from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two
further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-
C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy,
C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy,
-C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl,

-O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocycl, -S-aryl,
-S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocycl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents

5 selected from

- o hydroxy, halogen, cyano, nitro, -NR²⁶R²⁷, -C(=O)NR²⁶R²⁷, -OC(=O)NR²⁶R²⁷,
-OCH₂C(=O)NR²⁶R²⁷, C₁₋₆-alkoxy, -C(=O)OR²⁶, -C(=O)R²⁶, -NHC(=O)R²⁶,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁶,
-S(=O)R²⁶, -S(=O)₂R²⁶, -S(=O)₂NH₂,

10

wherein R²⁶ and R²⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁶ and R²⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 15 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- o C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

20

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁸R²⁹, -C(=O)NR²⁸R²⁹, -OC(=O)NR²⁸R²⁹,
-OCH₂C(=O)NR²⁸R²⁹, C₁₋₆-alkoxy, -C(=O)OR²⁸, -C(=O)R²⁸, -NHC(=O)R²⁸,
-CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁸,
-S(=O)R²⁸, -S(=O)₂R²⁸, -S(=O)₂NH₂,

25

wherein R²⁸ and R²⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁸ and R²⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring 30 optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- o aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocycl, aryl-C₁₋₆-alkyl, C₃₋₈-cyclo-alkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocycl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-hetero-cycl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl,

35

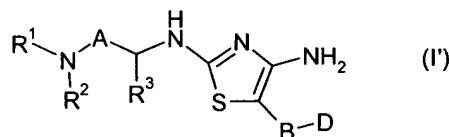
-C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

5 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹, -C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰, -S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

10 15 wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

20 44. A method for treating bipolar disorder, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

25 A is a valence bond or C₁₋₆-alkylene,

(i) R¹ and R², together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which 30 ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R⁴ and R⁵ which are independently selected from

- hydrogen,

- oxo,
- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

5

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁶R⁷, -C(=O)NR⁶R⁷, -OC(=O)NR⁶R⁷, -OCH₂C(=O)NR⁶R⁷, C₁₋₆-alkoxy, -C(=O)OR⁶, -C(=O)R⁶, -NHC(=O)R⁶, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁶, -S(=O)R⁶, -S(=O)₂R⁶, -S(=O)₂NH₂,

10

wherein R⁶ and R⁷ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁶ and R⁷, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

20

25

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR⁸R⁹, -C(=O)NR⁸R⁹, -OC(=O)NR⁸R⁹, -OCH₂C(=O)NR⁸R⁹, C₁₋₆-alkoxy, -C(=O)OR⁸, -C(=O)R⁸, -NHC(=O)R⁸, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR⁸, -S(=O)R⁸, -S(=O)₂R⁸, -S(=O)₂NH₂,

30

wherein R⁸ and R⁹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R⁸ and R⁹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

and R³ is hydrogen,

(ii) or R¹ is hydrogen, -C(=O)OR¹⁰, -C(=O)R¹⁰, C₁₋₆-alkyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl or C₃₋₈-heterocyclyl-C₁₋₆-alkyl,

5 wherein R¹⁰ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR¹¹R¹², -C(=O)NR¹¹R¹², -OC(=O)NR¹¹R¹²,
-OCH₂C(=O)NR¹¹R¹², C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹¹,
10 -C(=O)R¹¹, -NHC(=O)R¹¹, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂,
-SCF₃, -SR¹¹, -S(=O)R¹¹, -S(=O)₂R¹¹, -S(=O)₂NH₂,

15 wherein R¹¹ and R¹² which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹¹ and R¹², together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R² and R³ are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R¹³ and R¹⁴ which are independently selected from

- hydrogen,
- oxo,
- 25 • C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

30 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR¹⁵R¹⁶, -C(=O)NR¹⁵R¹⁶,
-OC(=O)NR¹⁵R¹⁶, -OCH₂C(=O)NR¹⁵R¹⁶, C₁₋₆-alkoxy, -C(=O)OR¹⁵, -C(=O)R¹⁵,
-NHC(=O)R¹⁵, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁵,
-S(=O)R¹⁵, -S(=O)₂R¹⁵, -S(=O)₂NH₂,

35 wherein R¹⁵ and R¹⁶ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁵ and R¹⁶, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

15 hydroxy, halogen, cyano, nitro, -NR¹⁷R¹⁸, -C(=O)NR¹⁷R¹⁸, -OC(=O)NR¹⁷R¹⁸, -OCH₂C(=O)NR¹⁷R¹⁸, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR¹⁷, -C(=O)R¹⁷, -NHC(=O)R¹⁷, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR¹⁷, -S(=O)R¹⁷, -S(=O)₂R¹⁷, -S(=O)₂NH₂,

20 wherein R¹⁷ and R¹⁸ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R¹⁷ and R¹⁸, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 (iii) or R¹ and R² which may be the same or different independently are selected from hydrogen, -C(=O)OR¹⁹ -C(=O)R¹⁹ and C₁₋₆-alkyl,

wherein R¹⁹ is C₁₋₆-alkyl, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which may optionally be substituted with one or two substituents independently selected from

30 • hydroxy, halogen, cyano, nitro, -NR²⁰R²¹, -C(=O)NR²⁰R²¹, -OC(=O)NR²⁰R²¹, -OCH₂C(=O)NR²⁰R²¹, C₁₋₆-alkoxy, -C(=O)OR²⁰, -C(=O)R²⁰, -NHC(=O)R²⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁰, -S(=O)R²⁰, -S(=O)₂R²⁰, -S(=O)₂NH₂,

- wherein R²⁰ and R²¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁰ and R²¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

and R³ is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)₂-,

10 D is

- hydroxy, halogen, cyano, nitro, -NR²²R²³, -N(R²²)OR²³, -C(=O)NR²²R²³,
-OC(=O)NR²²R²³, -OCH₂C(=O)NR²²R²³, C₁₋₆-alkoxy, -C(=O)OR²², -C(=O)R²²,
-NHC(=O)R²², -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²²,
15 -S(=O)R²², -S(=O)₂R²², -S(=O)₂NH₂,

wherein R²² and R²³ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²² and R²³, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl,

25

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR²⁴R²⁵, -C(=O)NR²⁴R²⁵, -OC(=O)NR²⁴R²⁵,
-OCH₂C(=O)NR²⁴R²⁵, C₁₋₆-alkoxy, -C(=O)OR²⁴, -C(=O)R²⁴, -NHC(=O)R²⁴, -CHF₂,
-CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR²⁴, -S(=O)R²⁴, -S(=O)₂R²⁴,
-S(=O)₂NH₂,

30

wherein R²⁴ and R²⁵ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R²⁴ and R²⁵, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C_{3-8} -cycloalkyl, heteroaryl, C_{3-8} -heterocyclyl, aryl- C_{1-6} -alkyl, C_{3-8} -cycloalkyl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, C_{3-8} -heterocyclyl- C_{1-6} -alkyl, aryl- C_{1-6} -alkoxy, C_{3-8} -cycloalkyl- C_{1-6} -alkoxy, heteroaryl- C_{1-6} -alkoxy, C_{3-8} -heterocyclyl- C_{1-6} -alkoxy, - $C(=O)$ -aryl, - $C(=O)$ - C_{3-8} -cycloalkyl, - $C(=O)$ -heteroaryl, - $C(=O)$ - C_{3-8} -heterocyclyl, - O -aryl, - O - C_{3-8} -cycloalkyl, - O -heteroaryl, - O - C_{3-8} -heterocyclyl, - S -aryl, - S - C_{3-8} -cycloalkyl, - S -heteroaryl, - S - C_{3-8} -heterocyclyl, - NH -aryl, - NH -heteroaryl,

5

wherein the ring moieties may optionally be substituted with one to three substituents selected from

10

- hydroxy, halogen, cyano, nitro, - $NR^{26}R^{27}$, - $C(=O)NR^{26}R^{27}$, - $OC(=O)NR^{26}R^{27}$, - $OCH_2C(=O)NR^{26}R^{27}$, C_{1-6} -alkoxy, - $C(=O)OR^{26}$, - $C(=O)R^{26}$, - $NHC(=O)R^{26}$, - CHF_2 , - CF_3 , - OCF_3 , - $OCHF_2$, - OCH_2CF_3 , - OCF_2CHF_2 , - SCF_3 , - SR^{26} , - $S(=O)R^{26}$, - $S(=O)_2R^{26}$, - $S(=O)_2NH_2$,

15

wherein R^{26} and R^{27} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{26} and R^{27} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- C_{1-6} -alkyl, C_{2-6} -alkenyl, C_{2-6} -alkynyl,

25

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, - $NR^{28}R^{29}$, - $C(=O)NR^{28}R^{29}$, - $OC(=O)NR^{28}R^{29}$, - $OCH_2C(=O)NR^{28}R^{29}$, C_{1-6} -alkoxy, - $C(=O)OR^{28}$, - $C(=O)R^{28}$, - $NHC(=O)R^{28}$, - CHF_2 , - CF_3 , - OCF_3 , - $OCHF_2$, - OCH_2CF_3 , - OCF_2CHF_2 , - SCF_3 , - SR^{28} , - $S(=O)R^{28}$, - $S(=O)_2R^{28}$, - $S(=O)_2NH_2$,

30

wherein R^{28} and R^{29} which may be the same or different independently are selected from hydrogen and C_{1-6} -alkyl, or R^{28} and R^{29} , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

- o aryl, C₃₋₈-cycloalkyl, heteroaryl, C₃₋₈-heterocyclyl, aryl-C₁₋₆-alkyl, C₃₋₈-cycloalkyl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, C₃₋₈-heterocyclyl-C₁₋₆-alkyl, aryl-C₁₋₆-alkoxy, C₃₋₈-cycloalkyl-C₁₋₆-alkoxy, heteroaryl-C₁₋₆-alkoxy, C₃₋₈-heterocyclyl-C₁₋₆-alkoxy, -C(=O)-aryl, -C(=O)-C₃₋₈-cycloalkyl, -C(=O)-heteroaroyl, -C(=O)-C₃₋₈-heterocyclyl, -O-aryl, -O-C₃₋₈-cycloalkyl, -O-heteroaryl, -O-C₃₋₈-heterocyclyl, -S-aryl, -S-C₃₋₈-cycloalkyl, -S-heteroaryl, -S-C₃₋₈-heterocyclyl,

5

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR³⁰R³¹, -C(=O)NR³⁰R³¹, -OC(=O)NR³⁰R³¹, -OCH₂C(=O)NR³⁰R³¹, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₂₋₆-alkynyl, C₁₋₆-alkoxy, -C(=O)OR³⁰, -C(=O)R³⁰, -NHC(=O)R³⁰, -CHF₂, -CF₃, -OCF₃, -OCHF₂, -OCH₂CF₃, -OCF₂CHF₂, -SCF₃, -SR³⁰, -S(=O)R³⁰, -S(=O)₂R³⁰, -S(=O)₂NH₂,

10

wherein R³⁰ and R³¹ which may be the same or different independently are selected from hydrogen and C₁₋₆-alkyl, or R³⁰ and R³¹, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

45. The method according to claims 27 and 33-42, said method comprising further 25 administering to said subject one or more agents selected from the group consisting of antidiabetic agents, antihyperlipidemic compounds, antiobesity compounds and antihypertensive compounds.

46. The method according to claim 43, said method further comprising further administering 30 to said subject one or more agents for treating Alzheimer's disease.

47. The method according to claim 44, said method further comprising further administering to said subject one or more agents for treating bipolar disorder.